

The Commonwealth of Massachusetts  
Executive Office of Health and Human Services  
Department of Public Health  
**William A. Hinton State Laboratory Institute**  
305 South Street, Jamaica Plain, MA 02130

DEVAL L. PATRICK  
GOVERNOR

TIMOTHY P. MURRAY  
LIEUTENANT GOVERNOR

JUDYANN BIGBY, MD  
SECRETARY

JOHN AUERBACH  
COMMISSIONER

Spencer Lord, ADA

Suffolk County District Attorney's Office  
By e-mail

July 20, 2011

Re: Comm. v. [REDACTED]

ADA Lord,

Please find below the material requested regarding the case noted above:

- 1) the chemists' c.v.'s
- 2) the Evidence Office receipt to the Boston Police
- 3) the inventory control card
- 4) the Drug Powder Analysis Form
- 5) the gas chromatography/mass spectrometry (gc/ms) data

I was the custodial chemist responsible for the chain of custody, the weights and the preliminary analysis of the submission. Annie Khan performed the confirmatory test on the gc/ms.

If you need further clarification of this material, call me directly at (617) 983-6627.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Lawler".

Michael Lawler  
Senior Chemist

Cc: Annie Khan

## Curriculum Vitae

Michael Lawler

### Education:

University of Virginia, Charlottesville, Va. Bachelor of Arts in English, 1975

Harvard University, Cambridge, Ma. Master of Arts in biology, 1995

### Experience:

1990-present currently Chemist III, Mass. Dept. of Public Health, Drug Lab analyst determining the identity of unknown substances and providing expert testimony in the Courts. Conduct special testing for poisons within drug exhibits. Lab Safety Officer.

2005-2008 lecturer in chemistry, Curry College, Milton, Ma.

1988-1990 New England Newborn Screening (NENS) Biochemist conducting pilot studies and validation trials of new newborn screening tests. Investigator and co-author of papers noted below. Introduced screening test for Biotinidase Deficiency. Liaison with interstate collaborators in national studies.

1983-1988 Supervised NENS urine screening lab for metabolic disorders. Conducted research in collaboration with Children's Hospital (Boston) detecting neuroblastoma, a cancer of early childhood. Conducted reference testing for rare metabolic disorders for an international audience.

1982-1983 NENS hypothyroid assay technologist with Tuft's University

1979-1981 Mass. Bay Community College, staff technologist preparing materials for the laboratory technician program, which included reagents, apparatus and maintaining stock cultures of human pathogens.

### Additional education and special training

Drug Analysis, completed six week training course by senior staff within the Department of Public Health Drug Analysis Laboratory

National Laboratory Network Training Program course as Expert Witness

Qualified as an expert witness in the Massachusetts Courts and the U.S. District Court

Current Drug Trends – Multijurisdictional Drug Task Force Academy

CDC course in antibiotic resistance CDC course in cell culture

CDC course in public health response to bioterrorism

U.S. Army course in biologic warfare and terrorism

### Journal Publications

Screening, 1992, 1:34-37; Lawler,M., Frederick,S., Rodriguez-Anza, S., Wolf,B., Levy,H., *Newborn Screening for Biotinidase Deficiency, Pilot Study and Follow-up of Identified Cases*

Genetic Screening, 1990, 11-18, Mitchell,M., Lawler,M., Walraven,C., Hermos,R., *To Screen or Not to Screen for Congenital Hyperplasia: Is that the Question?*

The Journal of Pediatrics, 116: 78-83, Secor-McVoy,J., Lawler,M., Schmidt, M., Ebers,D., Hart,P., Pettit,D., Blitzer,M., Wolf,B., *Partial Biotinidase Deficiency: Clinical and Biochemical Features*

### Professional Affiliations

Northeastern Association of Forensic Scientists (NEAFS) since 2005

### Awards

Theobald Smith Education Grant for graduate studies

## Curriculum Vitae

Annie Khan (Dookhan)

### Education:

University of Massachusetts, Boston, Ma, Master of Science in Chemistry.

University of Massachusetts, Boston, Ma, Bachelor of Science in Biochemistry.

### Experience:

2003 – present

Chemist I, II, Massachusetts Department of Public Health, Drug Analysis Laboratory

\*Completed six-week training course conducted by senior staff within the Department of Public Health, Drug Analysis Laboratory.

\*Appointed Assistant Analyst by Assistant Commissioner of Public Health, 2004.

\*Responsible for the identification of illicit drugs to determine violations of harmful and narcotic drug laws.

\*Trained in the use of complex analytical instrumentation, microscopes and balances for the purpose of drug analysis.

\*Maintenance and repairs of all analytical instruments.

\*Responsible for the Quality Control of all analytical instruments, reagents and controls/standards.

\*Responsible for the Quality Control/Quality Assurance program for the drug lab.

\*Notary Public.

\*Qualified as an expert witness in Massachusetts Courts and U.S. District Court

2001 – 2003

QC Analyst I, II, UMMS-Massachusetts Biologic Laboratory, QC Material Control

\*Completed proficiency training conducted by a member of the staff within the MLB Quality Control and Quality Assurance Department.

\*Method Development for creating new techniques and enhancing vaccines for the QC Dept. and FDA.

\*Writing, revising and reviewing Standard Operating Procedures (SOPs).

\*Trained and supervised new chemists and interns for the department.

\*Routine QC testing of products for the FDA.

\*Trained in the use of complex analytical instrumentation, and balances for the purpose of QC analysis for product and validation projects.

\*Calibration, preventive maintenance, QC and QA of analytical instrumentation.

\*Complete testing of chemicals for Vendor Validation Project for the FDA.

\*Compendial testing and interpretation of the USP, ACS, FCC, AOAC, Merck Index, PDR, etc.

### Additional Training:

Dept. of Justice – Forensics Professionals. (numerous trainings)

GLP/GMP course with Massachusetts Biologic Laboratory.

QC/QA training according to FDA Codes and Regulations.

GC and GC/MS courses with Agilent Technologies and Restek.

HPLC course with Waters Cooperation.

FTIR course with Spectros.

TOC training with MBL and Sievers.

### Association:

American Chemical Society (ACS)

Northeastern Association of Forensics Science (NEAFS)

**DRUG RECEIPT**

CC #

BOOK #

PAGE #

DESTRUCTION #

District/Unit

Name &amp; Rank of Arresting Officer

ID#

DEFENDANT'S NAME

ADDRESS

CITY

STATE

DESCRIPTION OF ITEMS SUBMITTED

GROSS  
QUANTITYGROSS  
WEIGHT

## LAB USE ONLY

ANALYSIS  
NUMBER

To be completed by ECU personnel only

Name and Rank of Submitting Officer

ID#

Received by

Date

ECU Control #

No. [REDACTED]

Date Analyzed: 01-21-11

City: Boston D.C.U. Police Dept.

Officer: P.O. KEITH BUTLER

Def: [REDACTED]

Amount:

Subst: SUB

No. Cont: 1 Cont: pb

Date Rec'd: 10/27/2010

No. Analyzed:

Gross Wt.: 4.29 ✓

Net Weight: 0.40 g

# Tests: 5/1002

Prelim: heroin

• 2 ASD

Findings: Heroin

GCMSD  
6012011-5

1-21-11

DRUG POWDER ANALYSIS FORM

SAMPLE #



AGENCY

Boston DCA

ANALYST

MRZ

No. of samples tested: \_\_\_\_\_



Evidence Wt.

4.29

PHYSICAL DESCRIPTION:

double bagged substance

Gross Wt ( ):

0.5517

Gross Wt ( ):

Pkg. Wt:

Net Wt:

0.4073

CHAW 2334

1-18-11

20g = 19.9998g  
10g = 9.9998g  
5g = 4.9998g  
1g = 0.9998g

PRELIMINARY TESTS

Spot Tests

Cobalt Thiocyanate ( ) +  
Marquis +  
Froehde's +  
Mecke's +

Microcrystalline Tests

Gold Chloride \_\_\_\_\_  
TLTA ( ) \_\_\_\_\_

OTHER TESTS

PRELIMINARY TEST RESULTS

RESULTS \_\_\_\_\_

DATE \_\_\_\_\_

GC/MS CONFIRMATORY TEST

RESULTS heroin

MS OPERATOR ASD

DATE 1-21-11

# Area Percent / Library Search Report

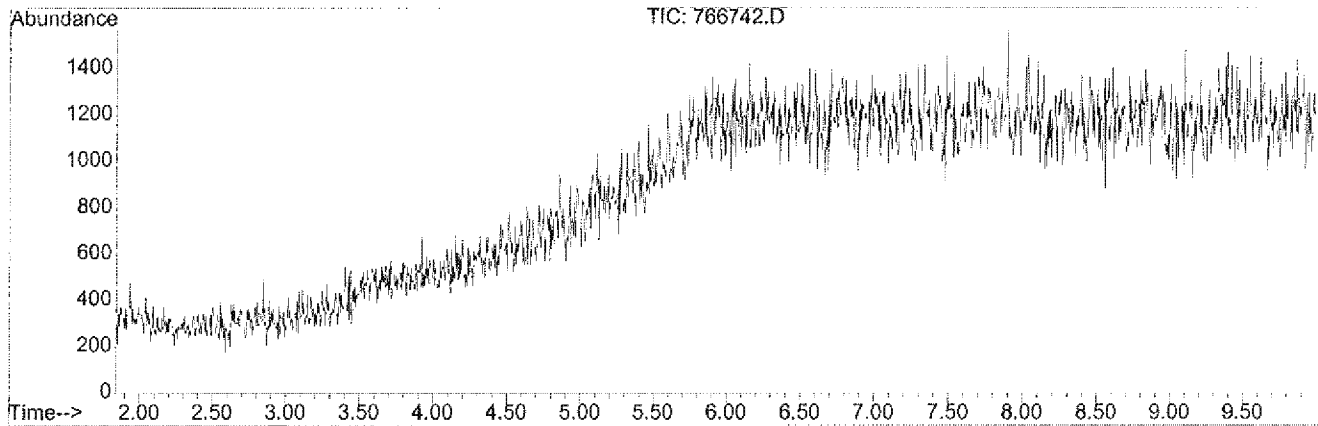
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## Information from Data File:

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Operator : ASD  
Date Acquired : 20 Jan 2011 16:03  
Sample Name : BLANK  
Submitted by :  
Vial Number : 1  
AcquisitionMeth: DRUGS  
Integrator : RTE

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✓ ASD  
07-20-11



Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*



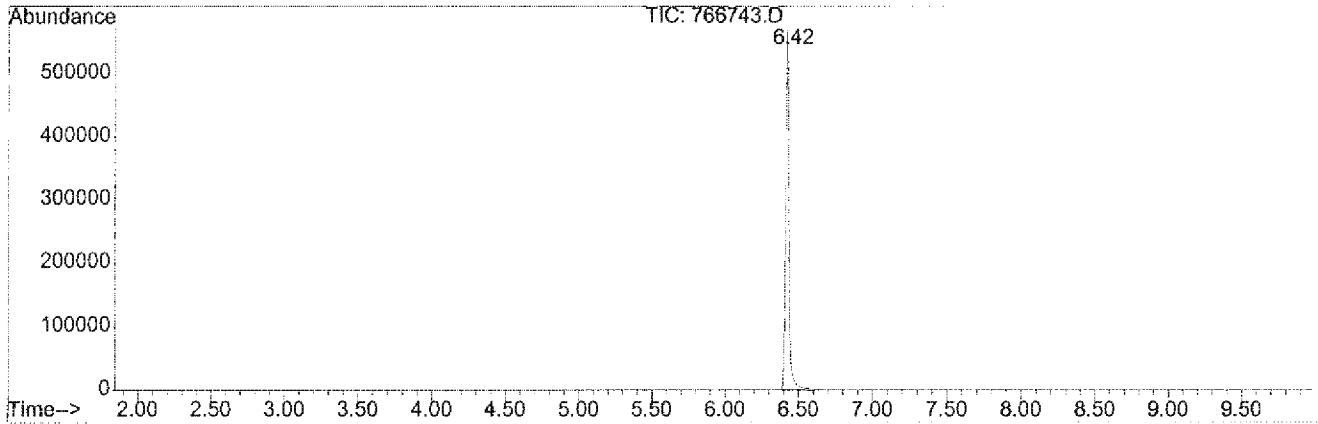
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## Information from Data File:

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Operator : ASD  
Date Acquired : 20 Jan 2011 16:16  
Sample Name : HEROIN STD  
Submitted by :  
Vial Number : 43  
AcquisitionMeth: DRUGS  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
6.417	884476	100.00	100.00

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# Area Percent / Library Search Report

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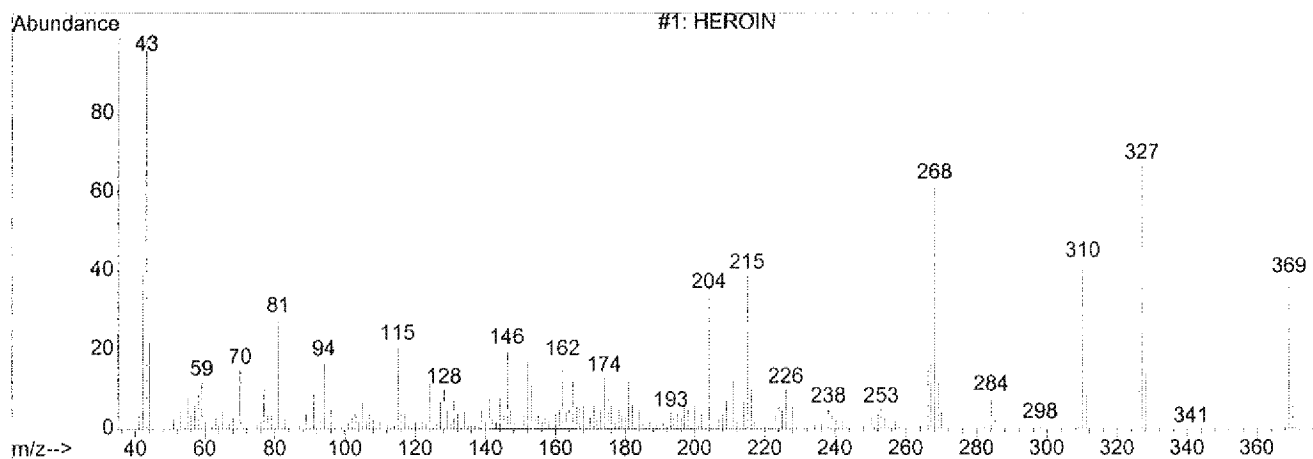
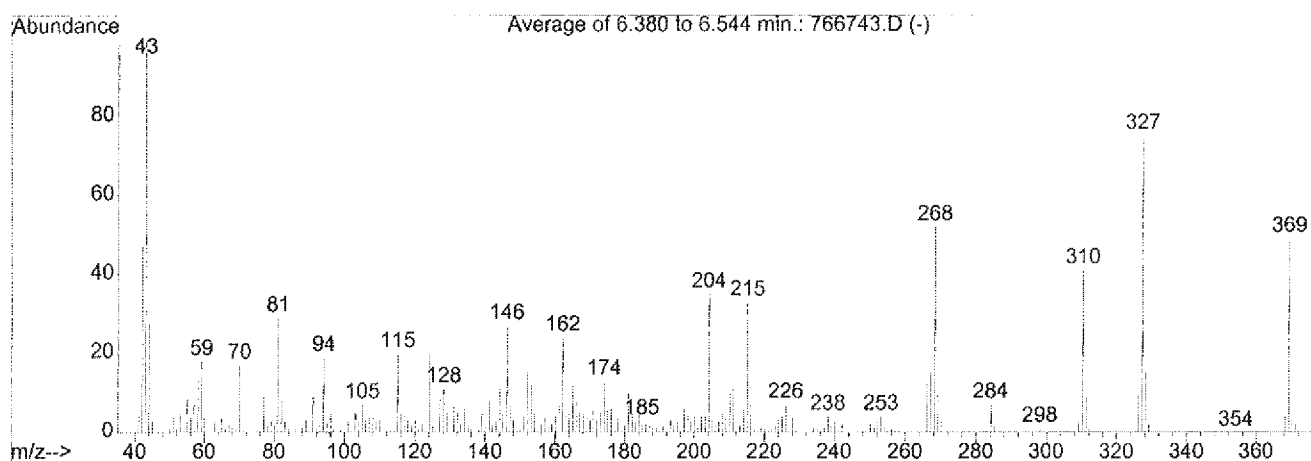
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File Name       : F:\Q1-2011\SYSTEM7\01_20_11\766743.D
Operator        : ASD
Date Acquired   : 20 Jan 2011  16:16
Sample Name     : HEROIN STD
Submitted by    :
Vial Number     : 43
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries: C:\DATABASE\SLI.L           Minimum Quality: 90
                  C:\DATABASE\PMW_TOX2.L      Minimum Quality: 90
                  C:\DATABASE\NIST98.L
  
```

PK#	RT	Library/ID	CAS#	Qual
1	6.42	C:\DATABASE\SLI.L HEROIN	000561-27-3	99



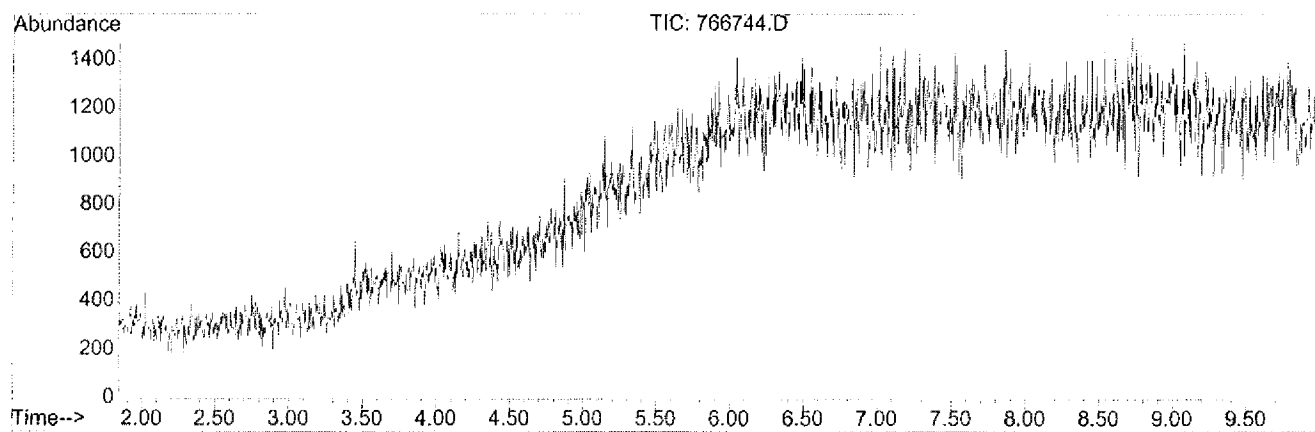
# Area Percent / Library Search Report

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Operator : ASD  
Date Acquired : 20 Jan 2011 16:28  
Sample Name : BLANK  
Submitted by : MGL  
Vial Number : 2  
AcquisitionMeth: DRUGS  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

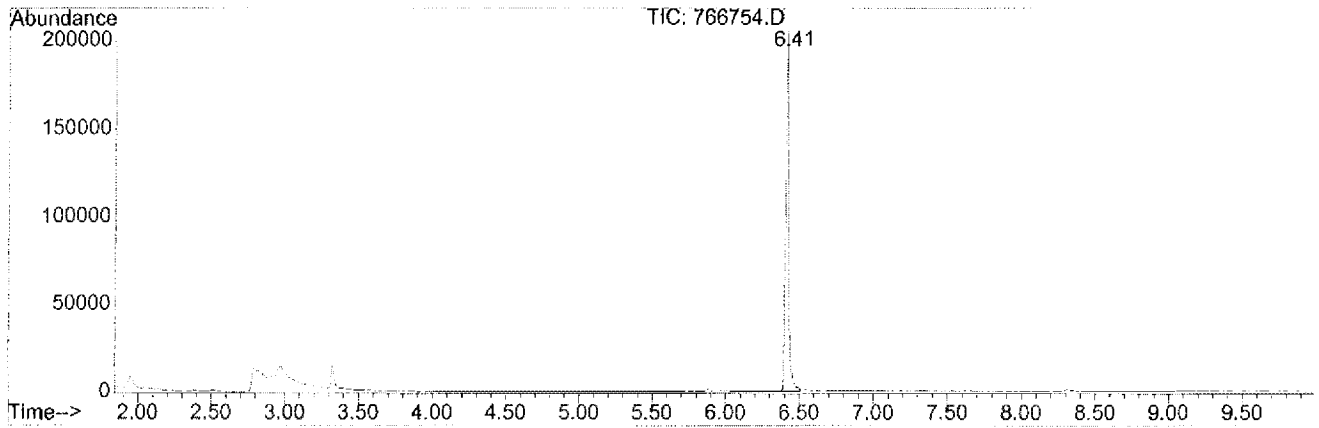
# Area Percent / Library Search Report

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## Information from Data File:

File Name : F:\Q1-2011\SYSTEM7\01\_20\_11\766754.D  
Operator : ASD  
Date Acquired : 20 Jan 2011 18:33  
Sample Name : XXXXXXXXXX  
Submitted by : MGL  
Vial Number : 54  
AcquisitionMeth: DRUGS  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
6.412	307662	100.00	100.00

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# Area Percent / Library Search Report

**Information from Data File:**

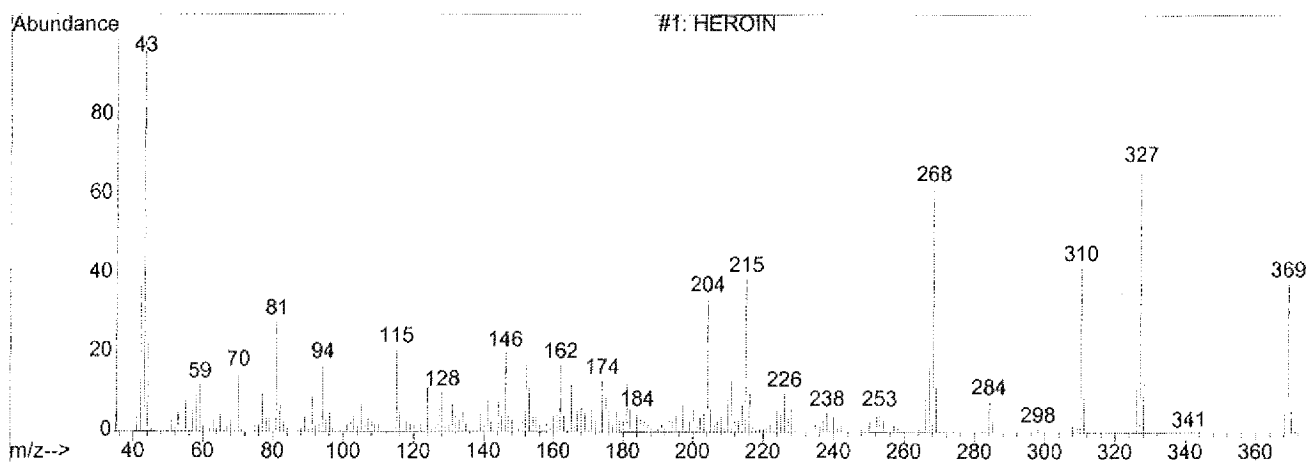
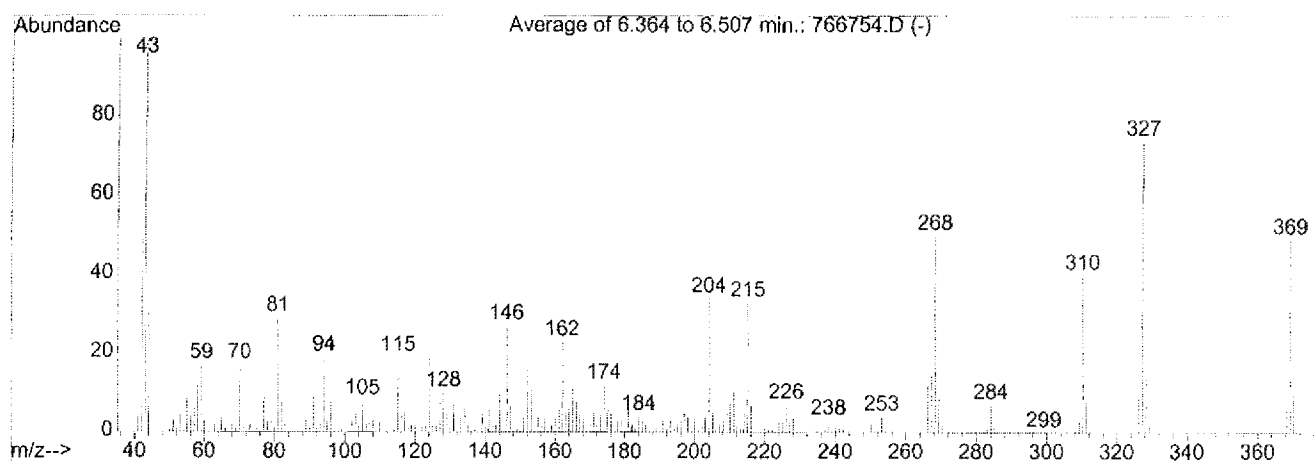
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File Name       : F:\Q1-2011\SYSTEM7\01_20_11\766754.D
Operator        : ASD
Date Acquired   : 20 Jan 2011  18:33
Sample Name     : ██████████
Submitted by    : MGL
Vial Number     : 54
AcquisitionMeth : DRUGS
Integrator      : RTE
  
```

```

Search Libraries: C:\DATABASE\SLI.L           Minimum Quality: 90
                  C:\DATABASE\PMW_TOX2.L      Minimum Quality: 90
                  C:\DATABASE\NIST98.L
  
```

PK#	RT	Library/ID	CAS#	Qual
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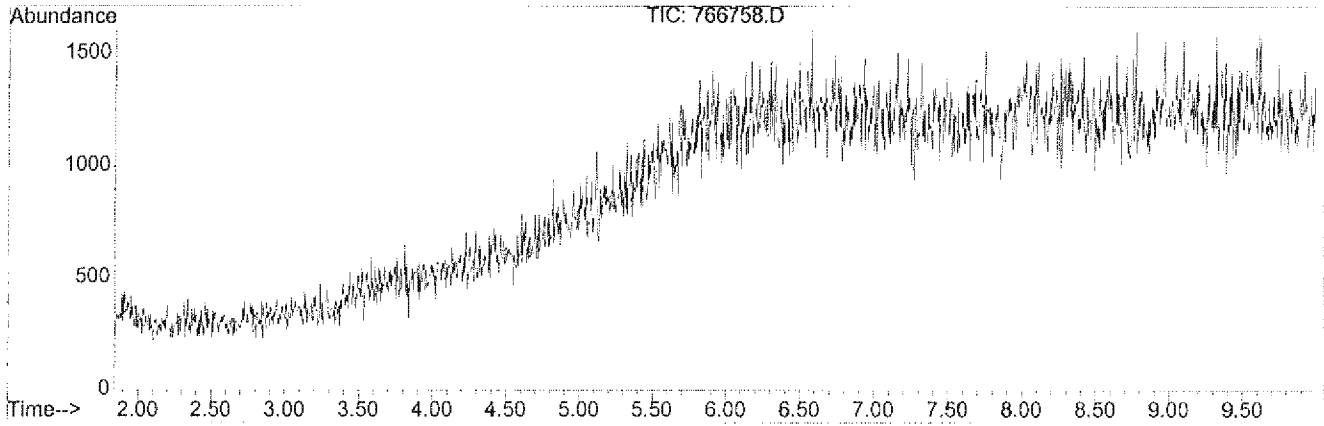
# Area Percent / Library Search Report

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Operator : ASD  
Date Acquired : 20 Jan 2011 19:23  
Sample Name : BLANK  
Submitted by :  
Vial Number : 2  
AcquisitionMeth: DRUGS  
Integrator : RTE

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Ret. Time	Area	Area %	Ratio %
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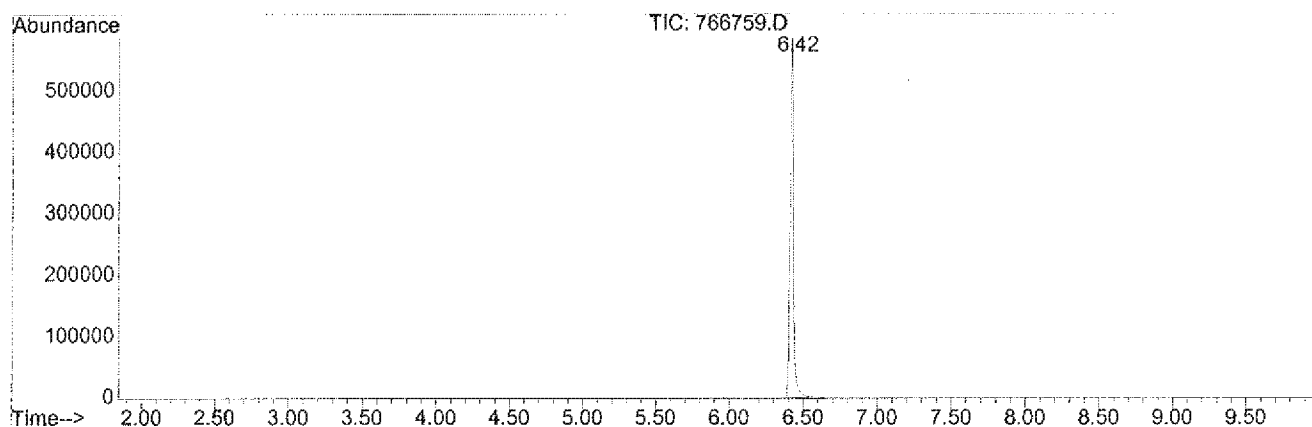
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\*\*\*NO INTEGRATED PEAKS\*\*\*

# Area Percent / Library Search Report

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File Name : F:\Q1-2011\SYSTEM7\01\_20\_11\766759.D  
 Operator : ASD  
 Date Acquired : 20 Jan 2011 19:35  
 Sample Name : HEROIN STD  
 Submitted by :  
 Vial Number : 43  
 AcquisitionMeth: DRUGS  
 Integrator : RTE



Ret. Time	Area	Area %	Ratio %
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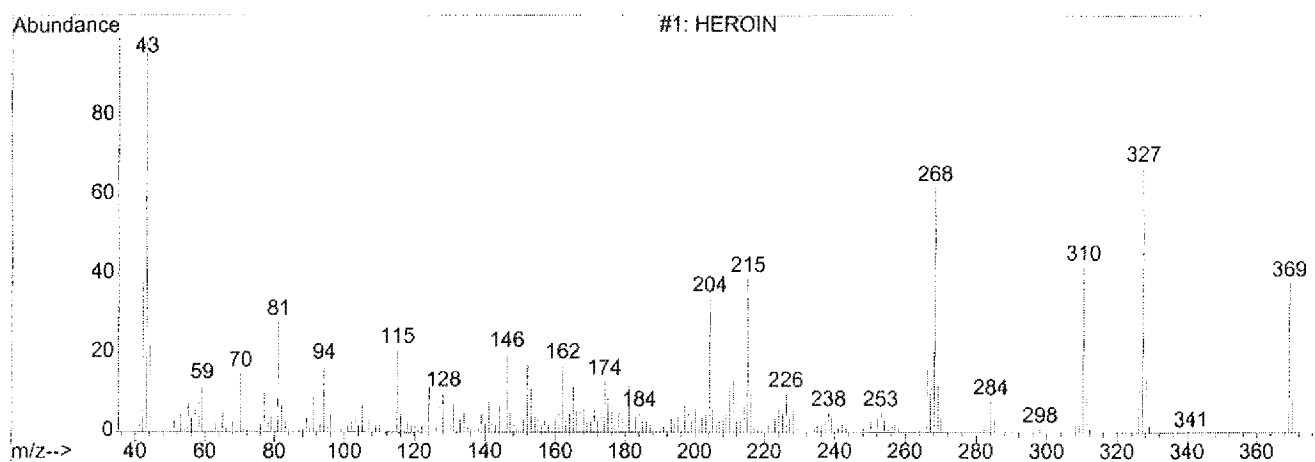
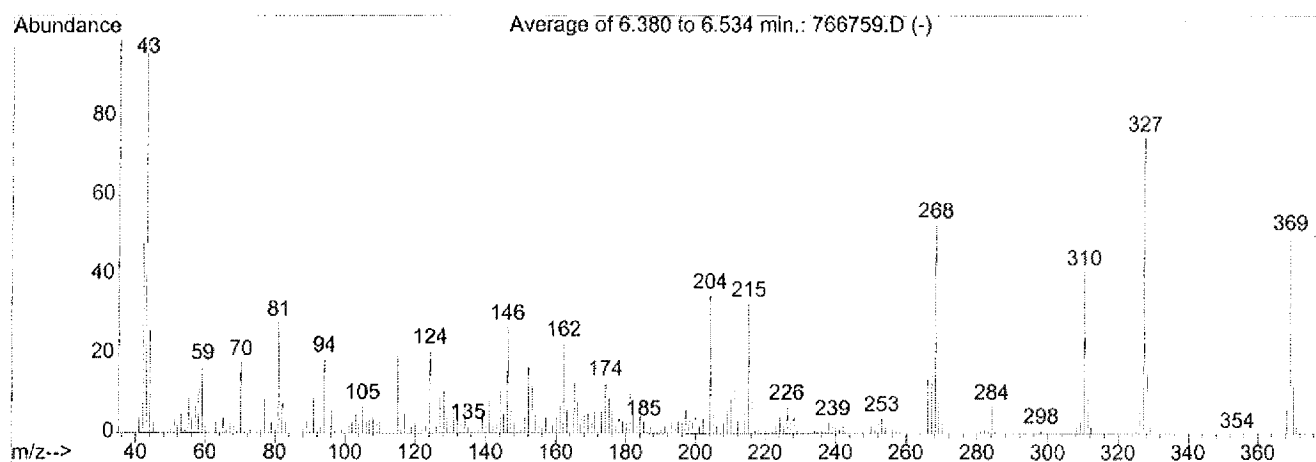
# Area Percent / Library Search Report

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 Operator : ASD  
 Date Acquired : 20 Jan 2011 19:35  
 Sample Name : HEROIN STD  
 Submitted by :  
 Vial Number : 43  
 AcquisitionMeth: DRUGS  
 Integrator : RTE

Search Libraries: C:\DATABASE\SLI.L Minimum Quality: 90  
 C:\DATABASE\PMW\_TOX2.L Minimum Quality: 90  
 C:\DATABASE\NIST98.L

PK#	RT	Library/ID	CAS#	Qual
1	6.42	C:\DATABASE\SLI.L HEROIN	000561-27-3	99

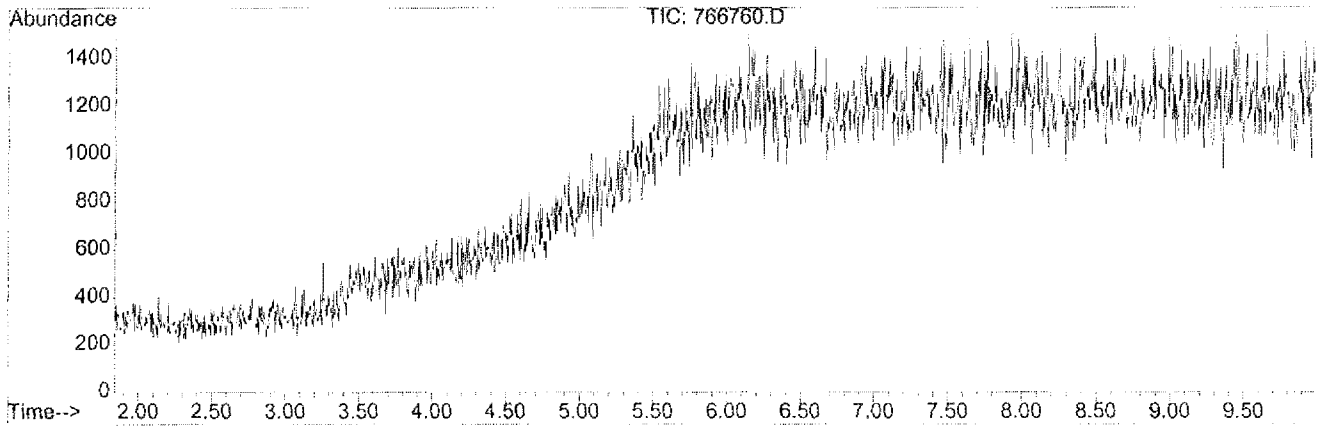




# Area Percent / Library Search Report

Information from Data File:

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Operator : ASD  
Date Acquired : 20 Jan 2011 19:48  
Sample Name : BLANK  
Submitted by :  
Vial Number : 2  
AcquisitionMeth: DRUGS  
Integrator : RTE



Ret. Time	Area	Area %	Ratio %
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\*\*\*NO INTEGRATED PEAKS\*\*\*

***Last page.....no further data***